

Work Order ID 150560

Monday, August 29, 2016 10:58:06 AM

150560**PRELIMINARY ISSUE**
DAS 33 9-89

Page 1

Item ID: D4617-9

Accept

N900040100

Setup Start

NS1

Revision ID: PRELIM

POSITIVE
RECALL

Item Name: Clamp Body

Stop

NS2

Start Date: 8/29/2016 Start Qty: 2.00

2

Cust Item ID:

Required Date: 9/2/2016 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan: **DAS 21** **AUG 29 2016** Date: _____ Tooling: _____ Date: _____

Run Start

NR1QC: **9-89** Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4617	PC1 Rev C								
100	Cut blanks as per folio	0.00							DAS 33 9-89 / 16/08/30
100									
Bandsaw	Memo	0.00							
Jeaspa Bandsaw	CUT BLANK AT 3.900"								
110		0.14							DAS 33 9-89 / 16/08/30
110									
HAAS 1	Memo	0.07							
HAAS CNC vertical machine #1	MILL AS PER DWG AND FOLIO FB495								
	FOLIO REV: <u>AK</u>								
	DWG REV: <u>PC1</u>								
	DEBURR								

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																
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Work Order ID 150560

Monday, August 29, 2016 10:58:06 AM

150560**PRELIMINARY ISSUE**

Page 2

Item ID: D4617-9 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: PRELIM Stop ***NS2***
Item Name: Clamp Body
Start Date: 8/29/2016 Start Qty: 2.00 ***2*** Cust Item ID:
Required Date: 9/2/2016 Req'd Qty: 2.00 ***2*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00				2	1		DAS 33 9-89 16/08/31
130 *130* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.01				2	0		16/08/31
140 *140* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.01				2	0		16/08/31 BEB

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
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Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
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Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 150560

Monday, August 29, 2016 10:58:06 AM

150560**PRELIMINARY ISSUE**

Page 3

Item ID: D4617-9

Accept

N900040100

Setup Start

NS1

Revision ID: PRELIM

Item Name: Clamp Body

Stop

NS2

Start Date: 8/29/2016 Start Qty: 2.00

2

Cust Item ID:

Required Date: 9/2/2016 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

QC7-Inspect Chemical Conversion Coat

0.00

150

QC

Memo

0.00

Quality Control

① 16-08-21

DAS
9
9-89

160

Identify as per dwg & Stock Location

0.00

160

Packaging

Memo

0.00

Packaging

w/o 150361

② 16-08-21

DAS
9
9-89

② 16-10-21

DAS
9
9-89

170

QC21- Final Inspection - Work Order Release

0.00

170

QC

Memo

0.03

Quality Control

DAS
21
9-89

OCT 2 1 2016

DAS
21
9-89

AUG 3 1 2016

POSITIVE RECALL

EFFECTIVE AUG 2 9 2016

RELEASED 9 9-89

AUTH

DATE 16-10-21

drew

ENG 7105

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Monday, August 29, 2016 10:58:09 AM

PRELIMINARY ISSUE

Page 1

Work Order ID: 150560

150560

Parent Item: D4617-9

D4617-9

Parent Item Name: Clamp Body

Start Date: 8/29/2016

Required Date: 9/2/2016

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A NEW ISSUE JFS 16/08/29 VERIFIED BY: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B1.250X01.25 0		Purchased	No			100	f	19.1527	0.325	0.684211			

M6061T6B1 250X01 250

6061-T6 Bar 1.25 x 1.25

**

DAS
33
9-89 / 16/08/30

Location

Loc Qty

Loc Code

MAT003

19.1527

m134776

7.1527

m135377

12

0.666'

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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DQA: _____ Date: _____



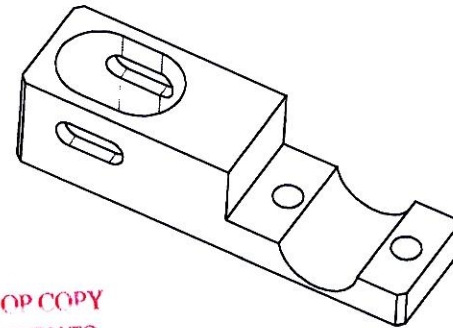
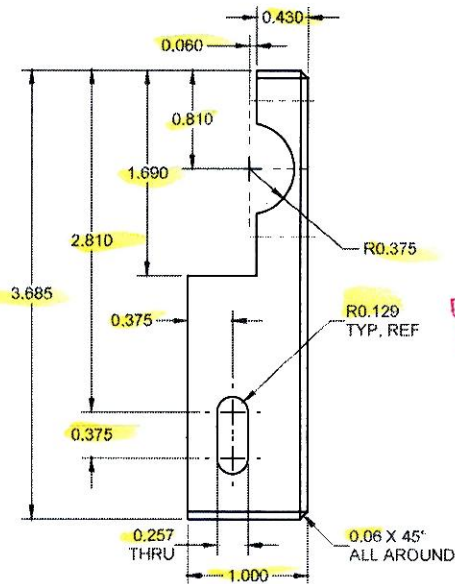
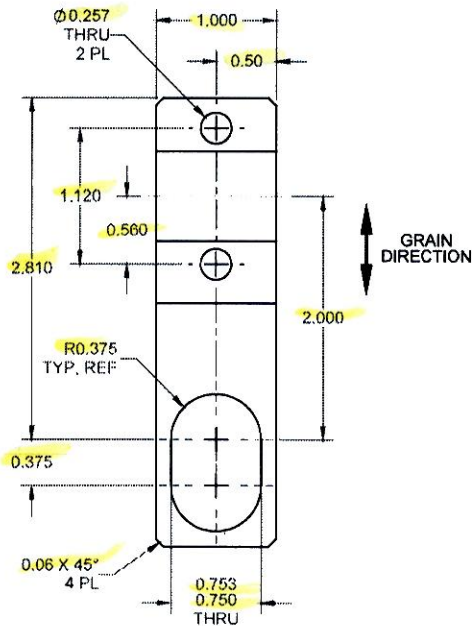
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QA Closed: _____ Date: _____

Work Order update only ☐

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		OTHER : ☐																																																																					

PRELIMINARY ISSUE



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 150560 MJS
16-08-29

D4617-9 CLAMP BODY

NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR
AMS 4117/4128/4115/4116 OR QQ-A-200/8
OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER DART QSI 044 6.6 OR 6.7
- 7) WEIGHT: 0.16 lbs

PRELIMINARY ISSUE

DESIGN	RP	DART AEROSPACE LTD	
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AJS	DRAWING NO.	REV. C
MFG. APPR.		D4617	SHEET 7 OF 7
APPROVED		TITLE	SCALE
DE APPR.		EMERGENCY ESCAPE LADDER	NTS
DATE	16.08.25	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐			FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER : ☐					

Ship From: **BILL OF LADING**
THYSSENKRUPP MATERIALS NA
2821 LANGSTAFF ROAD
CONCORD, ONTARIO L4K 5C6
Tel: 905 669 9444 Fax: 905-738-9033

No: PEC 991029
Ship Date 13May16 at 11:03 From PFW
Probill
Via VIM DELIVERY
FOB CONCORD
Frnt PREPAID
Route 0- 0 Manifest
Vhcle Trailer
Slp STAN IVERS (905-532-1350)
Sold To: (20115)
DART AEROSPACE

Ship To: (1)
DART AEROSPACE

BILL OF LADING

Order	Material	Heat Number	Tag No	Quantity	PCS	MTR	Wt LBS
6)	Our Order PEC-927459- 6 Your PO # 32341 ALUMINUM FLAT BAR 6061-T6511 1.750" x 3.00" X 144.0000"	Z00219150	531208	12 FT	1	MTR	31
7)	Our Order PEC-927459- 7 Your PO # 32341 ALUMINUM FLAT BAR 6061-T6511 1.125" x .750" X 240.0000"	423608-1	531209	60 FT	3	MTR	7
8)	Our Order PEC-927459- 8 Your PO # 32341 ALUMINUM FLAT BAR 6061-T6511 1.00" x 4.00" X 144.0000"	191717-2	531210	12 FT	1	MTR	57
9)	Our Order PEC-927459- 9 Your PO # 32341 ALUMINUM SQUARE BAR 6061-T6511 1.250" X 144.0000"	201601833	531211	12 FT	1	MTR	23
10)	Our Order PEC-927459- 10 Your PO # 32341 ALUMINUM FLAT BAR 6061-T6511 1.250" x 4.50" X 144.0000"	201605644	531212	12 FT	1	MTR	80
11)	Our Order PEC-927459- 11 Your PO # 32341 ALUMINUM FLAT BAR 6061-T6511 2.50" x 2.50" X 144.0000"					MTR	

Page: 2Continued

2016-05-16

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE
RAPPORTÉES IMMÉDIATEMENT.
ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY
TOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT.
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

CU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION
ST# 1017327981 TQ001 TPS/GST TVH/HST # 140223934 RT0001

DATE

Purchase Order Receipt Listing

Monday, May 16, 2016 10:10:25 AM

All Vendors PO ID PO32341 Receipt Dates from 5/13/2016 to 5/13/2016 All Line Item Types
All Item ID/GL/WOS All Rec. Employees All Currencies

(Grouped by Vendor ID)

Purchase Order ID/ Nbr/	Line	Insp/	Req	Project ID	Reference/ Description/	PO U/M /	Stock U/M /	Recv Date/	Recv Emp	Required Qty	Required Date	Recv Qty (PO U/M)	Cost Per Unit/	Inspected Qty/ (PO U/M)	MRB Qty/	MRB Reject Qty	Book Amt
VC-COP001	1				M174R0.750			5/18/2016	PI.01301	24.0000	5/13/2016	24.0000	\$5.35	0.0000	0.0000	0	\$128.39
	2				M303R0.375			5/18/2016	PI.01301	24.0000	5/13/2016	24.0000	\$1.49	0.0000	0.0000	0	\$35.86
	3				M303R0.750			5/18/2016	PI.01301	24.0000	5/13/2016	24.0000	\$35.86	0.0000	0.0000	0	\$35.86
	4				M303R2.000			5/18/2016	PI.01301	48.0000	5/13/2016	48.0000	\$3.17	0.0000	0.0000	0	\$152.24
	6				M606116R0.750X03.1			5/18/2016	PI.01301	13.2000	5/13/2016	13.2000	\$15.32	0.0000	0.0000	0	\$202.17
	No				M606116R0.750X03.1			5/18/2016	PI.01301	12.0000	5/13/2016	12.0000	\$4.89	0.0000	0.0000	0	\$58.65
	7				M606116R0.750X00.1			5/18/2016	PI.01301	60.0000	5/13/2016	60.0000	\$0.76	0.0000	0.0000	0	\$45.42
	No				M606116R0.750X00.1			5/18/2016	PI.01301	12.0000	5/13/2016	12.0000	\$9.30	0.0000	0.0000	0	\$111.60
	8				M606116R1.000X01.1			5/18/2016	PI.01301	12.0000	5/13/2016	12.0000	\$111.60	0.0000	0.0000	0	\$111.60
	No				M606116R1.25X01.1			5/18/2016	PI.01301	12.0000	5/13/2016	12.0000	\$3.47	0.0000	0.0000	0	\$41.60
	9				M606116R1.25X01.1			5/18/2016	PI.01301	12.0000	5/13/2016	12.0000	\$41.60	0.0000	0.0000	0	\$41.60

M174R0.750	F	m134776
17-1/2 round bar .750	F	m134776
M303R0.375	F	m134776
303 Round Bar 0.375"	F	m134776
M303R0.750	F	m134776
303 Round Bar 0.750"	F	m134776
M303R2.000	F	m134776
303 ROUND BAR 2"	F	m134776
M606116R0.750X03.1	F	m134776
6061-16 Bar .750 X 3.00	F	m134776
M606116R0.750X00.1	F	m134776
6061-16 Bar .750 X 4.00	F	m134776
M606116R1.000X01.1	F	m134776
6061-16 Bar 1.00 X 1.25	F	m134776
M606116R1.250X01.1	F	m134776
6061-16 Bar 1.25 X 1.25	F	m134776

THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM SQUARE BAR 6061-T6511

1.250" X 1.44.0000"

PART NO.

PO/Rel 32341

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-991029-009

13 May 16
Pg 1/1



Service Center Metals

5850 Quality Way
Prince George, VA 23875

CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

BILL TO ThyssenKrupp Materials NA-Concord, ON		MANIFEST NUMBER 284313	DIE NUMBER MSQ1866	DATE OF SHIPMENT 2/5/2016	OUR ORDER NUMBER 254395	ITEM 2
SHIP TO ThyssenKrupp Materials NA-Concord, ON		CUSTOMER PO PEC-272884	ALLOY/TEMPER 6061-T6511	SALESPERSON D. Schroeder (Canada)	CERTIFICATION ASTM-B221-14 Stencil Cont	
Quantity Certified	1,068 lbs	48 pcs	CUSTOMER PART NUMBER MSQ1866	DESCRIPTION MQSQ T.250 (+.012/-0.00)	SPECIFICATION AMS-QQA-200/8 - 1997	

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.

Mechanical Properties

Tests	Lot No.	Test Date	Ultimate Tensile Strength (KSI)		Yield Strength (KSI)		Percent Elongation	
4	201601833	2/3/16	min	max	min	max	min	max
			47.50	49.70	44.60	46.00	11.35	15.05

Chemical Composition for Aluminum Alloy 6061

<u>Cast #</u>	<u>Lot No</u>	<u>Alloy</u>	<u>Si</u>	<u>Fe</u>	<u>Cu</u>	<u>Mn</u>	<u>Mg</u>	<u>Cr</u>	<u>Zn</u>	<u>Ti</u>	<u>Al</u>	<u>Others</u>		<u>Melt Source</u>
												<u>Each</u>	<u>Total</u>	
01281603	201601833	6061	0.71	0.35	0.30	0.10	0.92	0.08	0.10	0.02	97.42	0.05	0.15	United States of America

SCM extrusions are manufactured in the USA.

Doc No. 226841 Indexed 11Feb16 by slsup1

Cable J. Wiggins, Director of Quality & Technical Services

Print Date: 2/5/2016

	Dart Aerospace Ltd.
	1270 Aberdeen Street
	Hawkesbury, ON K6A 1K7
	Tel: 613 632 9577
	Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO32341**

Purchase Order Date 5/11/2016
PO Print Date 5/11/2016

Page Number 4 of 8

Order From : VC-COP001
THYSSENKRUPP MATERIALS CA LTD
 O/A VPK METAL- C/O T27540 PO BOX 4275,POSTAL"A"
 TORONTO, ON M5W 5V8
 CA

Ship To : DART AEROSPACE LTD
 1270 ABERDEEN
 HAWKESBURY, ON K6A 1K7
 CANADA

Contact Name

Vendor Phone 905 669 9444

Ship To Contact

Ship To Phone

Ship Via: VENDOR'S TRUCK

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

8 M6061T6B1.000X04.000 6061-T6 Bar 1.00 x 4.00 5/18/2016
 Yes
 5/18/2016

12.00

\$11.67

\$140.04

MATERIAL: 6061-T6/T6510/T6511 T62 ALUMINUM BAR
 AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116
 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR
 ASTM B221

Line Total:

\$140.04

9 M6061T6B1.250X01.250 6061-T6 Bar 1.25 x 1.25 5/18/2016
 Yes
 5/18/2016

12.00

\$4.35

\$52.20

MATERIAL: 6061-T6/T6510/T6511 T62 ALUMINUM BAR
 AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116
 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR
 ASTM B221

Line Total:

\$52.20

10 M6061T6B1.250X04.500 6061-T6 Bar 1.25 X 4.50 5/18/2016
 Yes
 5/18/2016

12.00

\$14.81

\$177.75

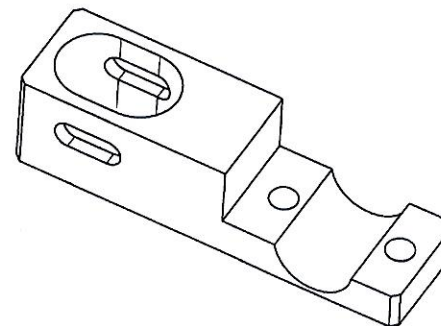
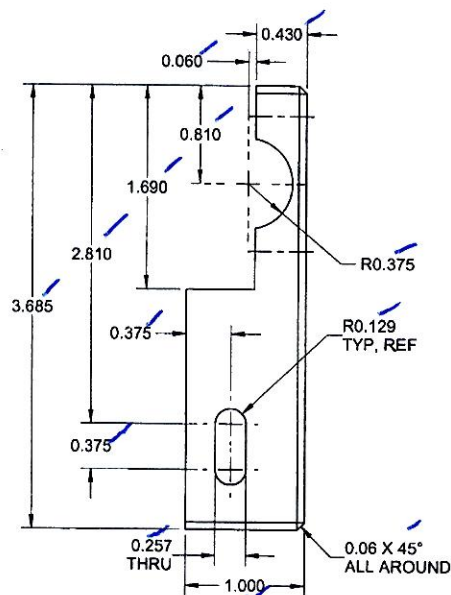
MATERIAL: 6061-T6/T6510/T6511 T62 ALUMINUM BAR
 AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116
 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR
 ASTM B221

PO Instructions: NO PEC ST-925618

Note:

5/11/2016

5/16/05-16



NOTES:

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: PER DART QSI 044 6.6 OR 6.7
7) WEIGHT: 0.16 lbs

RELEASE
2016-10-18

APPROVED

DESIGN	RP	DART AEROSPACE LTD	
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AJS	DRAWING NO.	REV. C
MFG. APPR.	JLM	D4617	SHEET 7 OF 7
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	EMERGENCY ESCAPE LADDER	NTS
DATE	16.08.25 THIS DOCUMENT IS PRIVATE AND/OR CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED OR NOT REPRODUCED OR COPIED OR COMMUNICATED TO ANY OTHER PERSON OR ENTITY WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD.		